

(12) UK Patent Application (19) GB (11) 2 157 734 A

(43) Application published 30 Oct 1985

(21) Application No 8409341

(22) Date of filing 11 Apr 1984

(71) Applicant
Donn Products (UK) Ltd (United Kingdom),
1 Swan Road, South West Industrial Estate, Peterlee,
Co. Durham SR8 2JJ

(72) Inventors
Alan Keith Wilcox,
Paul Dollimore

(74) Agent and/or Address for Service
Lloyd Wise Tregear & Co.,
Norman House, 105-109 Strand, London WC2R 0AE

(51) INT CL⁴
E04F 15/024

(52) Domestic classification
E1D 2026 401 402 404 902 LEVB2 PG2
U1S 1706 E1D

(56) Documents cited
GB A 2099039 **US 4142341**
GB 1240388

(58) Field of search
E1D
E1B

(54) Flexible trim for lid

(57) There is provided a relatively flexible edge trim element for a lid 16 of a composite raised floor panel, the lid having downturned and inwardly inclined sides, the trim element comprising a lower channel-shaped portion 24 for receiving the bottom edge of a side of the lid, an intermediate side portion 26 extending upwardly from the channel portion to be generally coextensive with said side 20 of the lid along the outer face thereof, and an upper portion 28 extending inwardly from the upper edge of said side portion to be above the upper surface of the lid and providing an inwardly facing abutment surface 32 to be adjacent the outer edge of said upper surface of the lid.

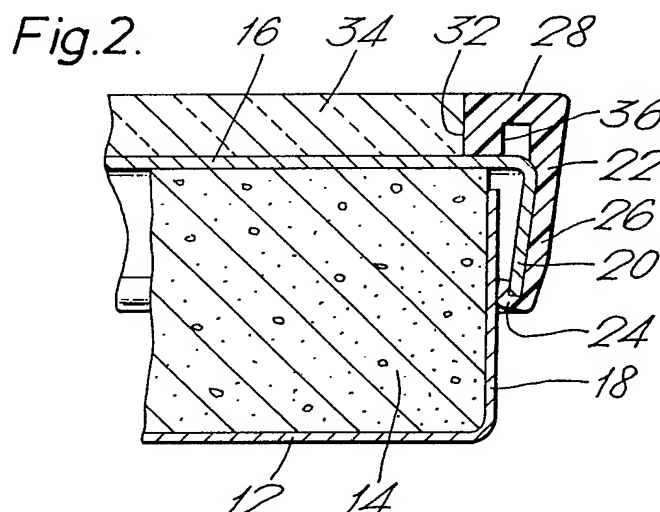


Fig.1.

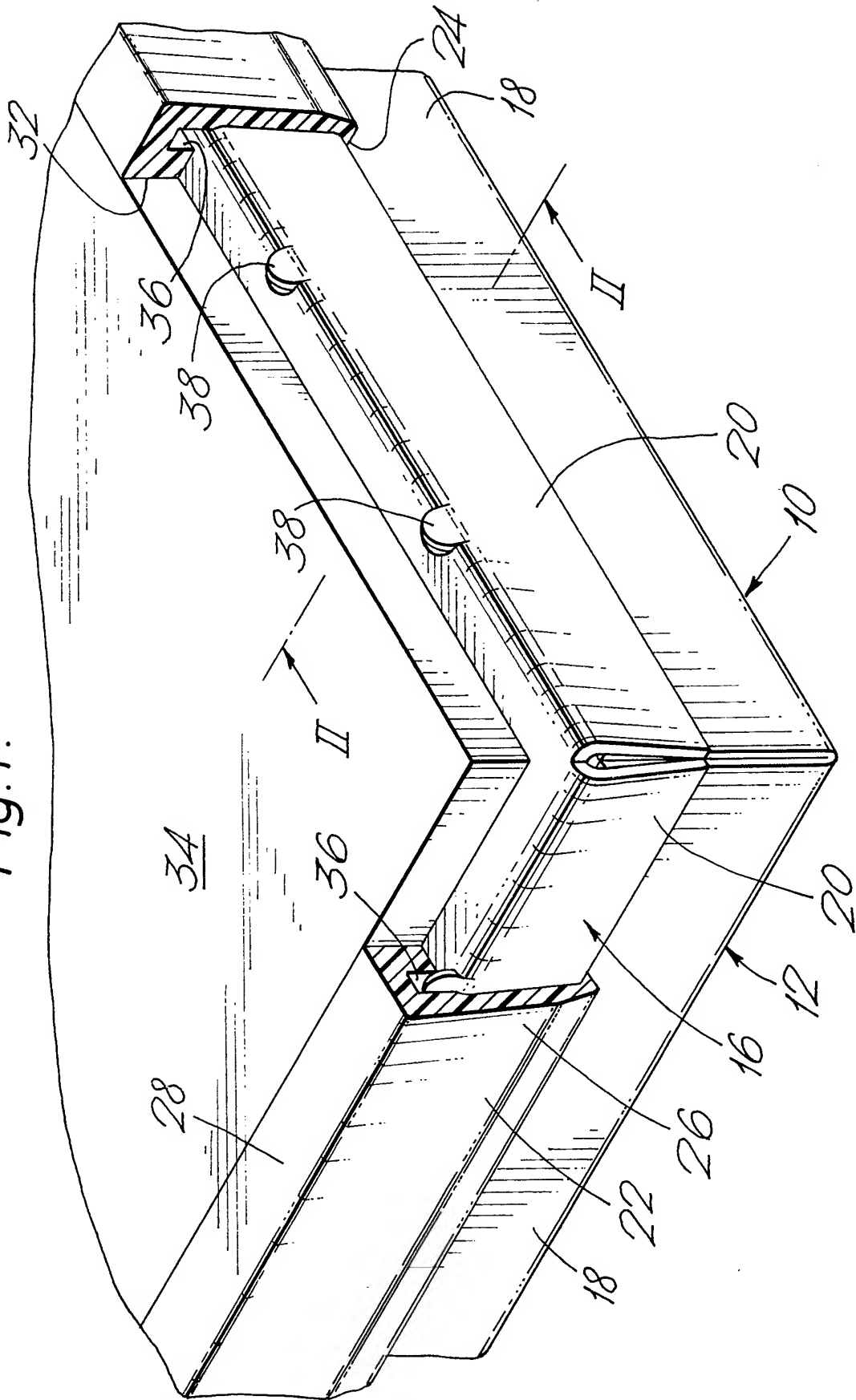


Fig.2.

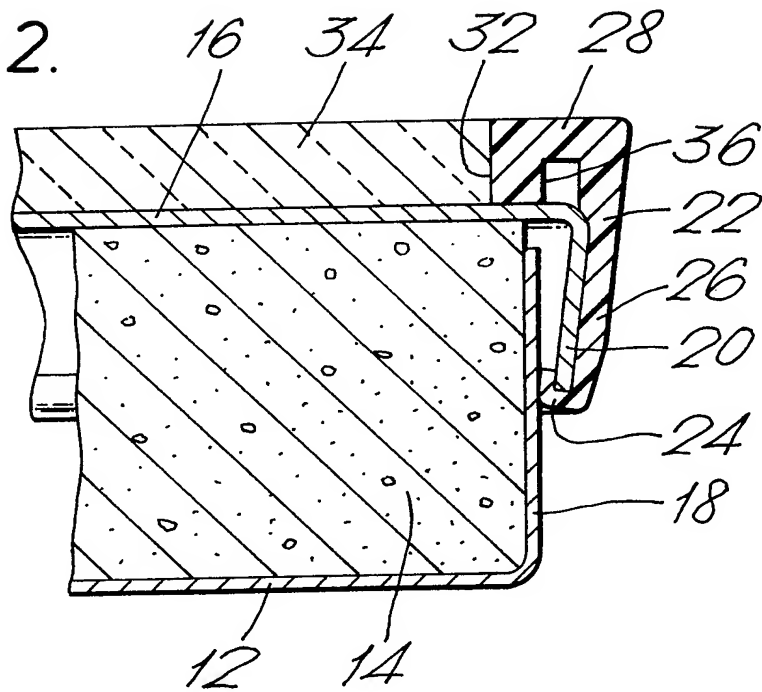
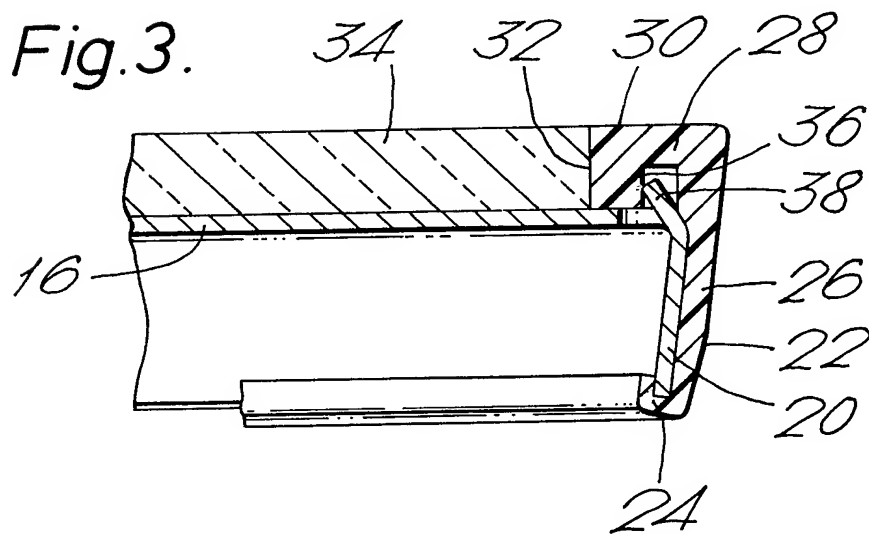


Fig.3.



SPECIFICATION

Panel for raised floor systems

5 This invention relates generally to panels for raised floor systems of the kind which comprise removable panels supported on an array of support members upstanding from the base floor. The plenum defined between the raised floor and the base floor

10 serves to house service equipment such as electric cables and air-supply ducts, which can be readily accessed when and where required by removal of the appropriate panel or panels of the raised floor.

15 A known panel for raised floor systems of this kind is of a composite construction and comprises a lower tray-like member, which receives a sheet of particle board or any other suitable structural in-fill material, and an upper lid-like member, which

20 rests on the upper surface of the fill material or on the upstanding sides of the tray, and which has downturned and inwardly inclined sides which receive the upper edges of sides of the tray to enclose the fill material. The tray and lid are suitably

25 formed from sheet metal, preferably sheet steel, and normally are of a rectangular or square outline. The present invention is directed to improvements in such composite panels.

More particularly, the present invention in its

30 broadest aspect provides an edge trim element for the lid of a composite raised floor panel, which is formed of a relatively flexible material such as plastics or rubber and which provides a lower channel-shaped portion for receiving the bottom

35 edge of a side of the lid, an intermediate side portion extending upwardly from the channel portion to be generally coextensive with said side of the lid along the outer face thereof, and an upper portion extending inwardly from the upper edge of said

40 side portion to be above of said upper surface of the lid.

The edge trim element of the present invention preferably is sized so as to be a tight fit around the side of the lid with which it is to be used. The

45 length of the element can, of course, vary but preferably is such as to extend along the complete length of the side of the lid. Where, as is preferred, each side of a lid is to be provided with an edge trim element, the ends of each element can be be-

50 velled so as to provide a neat finish to the lid of the assembled panel.

Whilst it is possible for the edge trim element to be held in place by virtue of being a tight fit around the side of the lid and/or by means of an

55 adhesive, the preferred embodiment of the invention is an assembly of the edge trim element in combination with a lid which is modified to provide a positive locking action on the trim element in combination with a lid which is modified to provide a positive locking action on the trim element

60 without requiring the use of an adhesive. To this end, for example, spaced locking tabs can project upwards from the plane of the upper surface of the lid adjacent the outer edges thereof, whilst the up-

65 per portions of the trim elements provide an out-

wardly facing tab engaging surface which can be snapped over the tabs to hold the trim element firmly in place. Instead of individual spaced locking tabs, a single projecting rib can be provided on the

70 upper surface of the lid adjacent each edge, or, less desirably, the locking tabs or ribs can be provided along the outer faces of the sides of the lid, with of course appropriate modification to the edge trim elements.

75 An important advantage of the edge trim element of this invention is that it provides support for the edge of a decorative panel, such as a carpet panel or panel of a decorative laminate, which can be laid on the upper surface of the lid of the composite floor panel to give an improved appearance to the raised floor. Another advantage of the present trim element is that its lower channel portion helps to hold the lid and tray members of the composite floor panel together, more especially because the presence of this channel portion around

80 the lower edge of the side of the lid helps to ensure a tighter fit of the lid on the tray.

The edge trim element is suitably formed by extrusion of a plastics material such as polyvinylchloride, but other materials such as natural or

90 synthetic rubbers may also be used.

A preferred embodiment of the present invention will now be described with reference to the accompanying drawings, in which: *Figure 1* is a perspective view of part of a composite raised floor panel and edge trim element assembly in accordance with the present invention, the edge trim element being shown partly cut away;

95

Figure 2 is a cross-sectional view, on a slightly reduced scale, taken on the line II-II of Fig. 1; and

100 *Figure 3* is a cross-sectional view illustrating the locking action on the trim provided by the lid of the composite floor panel.

In the following description, and throughout this specification, terms such as "upper" and "lower" are used to refer to the floor panel and fitted edge trim element, as the floor panel would be used in the assembly of a raised floor.

105

The illustrated composite floor panel, generally designated 10, is of rectangular, preferably square, outline and comprises a lower tray-like member 12, of sheet steel structural in-fill material 14 (Fig. 2) such as flooring grade chipboard, received within and filling the tray 12, and a lid 16, also of sheet steel. As best seen in Fig. 2, the tray 12 has upstanding sides 18 which extend upwards from the base of the tray substantially the full depth of the sheet of in-fill material, whilst the lid 16 is relatively shallow although its sides 20 overlap the upper edges of the tray sides 18 to a certain extent. As best seen in Figs. 2 and 3, the sides 20 of the lid form an acute angle with the plane of the upper surface of the lid, that is the sides 20 are inclined inwardly towards the sides 18 of the tray section. It is found that this construction provides an enhanced rigidity to the edge of the assembled floor panel.

110

115

120

125

Fitted along the sides 20 of the lid are edge trim elements, generally designated 22. The edge trim elements 22 are formed of extruded polyvinylchlor-

130

side or other relatively flexible (as compared to the material of the lid) material, and essentially comprises (see Figs. 2 and 3) a lower channel-formed portion 24 which receives the lower edge of sides 20 of the lid with a sliding fit, an intermediate side portion 26 extending upwardly from the channel portion 24, generally parallel to and adjacent the outer face of the inwardly inclined sides 20 of the lid, to a point slightly above the level of the upper surface of the lid, and an upper portion 28 extending in a generally horizontally inwards direction towards the panel from the upper end of the intermediate side portion 26 sufficiently to overlie the outer edge region of the upper surface of the lid. The inner end 30 of the upper portion 28 is turned downwards towards the upper surface of the lid 16 and forms an inwardly facing, generally vertical, abutment surface 32 for providing side support for a decorative panel or tile 34 laid on the upper surface of the assembled floor panel, as shown in Fig. 1. The inner end 30 also defines an outwardly facing tab engaging surface 36 whose function will become apparent hereinafter.

As best shown in Fig. 2, the inner side of the lower channel portion 24 of the edge trim element helps to ensure a tight fit of the lid 16 on the tray 12 when the floor panel is assembled.

According to an important feature of the illustrated embodiment, the edge trim element 22 is locked in position on the sides 20 of the lid by means of a plurality of spaced locking tabs 38 which are pressed out from the lid at the junction between its upper surface and depending sides. As best seen in Fig. 3, each locking tab 38 projects upwardly and inwardly so that there is formed along each outer edge of the lid a line of locking projections over which the inner end 30 of the upper portion 28 of the edge trim elements snapped into place when the edge trim elements are fitted onto the sides of the lid, with the result that these elements are held securely in place by engagement of the tabs against the tab engaging surfaces 36 of the edge trim elements.

It will be appreciated that numerous modifications can be made to the illustrated embodiment of the invention within the scope of this invention. For example, structural in-fill material 14 other than a sheet of particle-board may be used, whilst the tray and lid member of the floor panel can be formed from sheet metal other than steel sheet. Again, instead of the separate locking tabs 38 pressed out of the lid member, the lid could be formed with a continuous projecting rib along each edge which would act in a functionally analogous manner to the tabs 38.

CLAIMS

1. A relatively flexible edge trim element for a lid of a composite raised floor panel, the lid having downturned and inwardly inclined sides, the trim element comprising a lower channel-shaped portion for receiving the bottom edge of a side of the lid, an intermediate side portion extending upwardly from the channel portion to the generally

coextensive with said side of the lid along the outer face thereof, and an upper portion extending inwardly from the upper edge of said side portion to be above the upper surface of the lid and providing an inwardly facing abutment surface to be adjacent the outer edge of said upper surface of the lid.

2. A trim element according to Claim 1, formed by extruding plastics material.

3. A trim element according to Claim 2, wherein said plastics material is polyvinylchloride.

4. A trim element according to any preceding claim, wherein the ends of said element are bevelled.

5. A trim element according to any preceding claim, particularly adapted for use with a lid having spaced locking tabs projecting upwards from the plane of the upper surface of the lid adjacent the outer edges thereof, wherein the upper portion of the element provides an outwardly facing tab engaging surface adapted to be snapped over the locking tabs of the lid to hold the element in place.

6. An assembly comprising a lid of a composite raised floor panel and a relatively flexible edge trim element therefor, the lid having downturned and inwardly inclined sides, and the edge trim element being as defined in any preceding claim.

7. An edge trim element for a lid of a composite raised floor panel, substantially as hereinabove described with reference to the accompanying drawings.

8. An assembly comprising a lid of a composite raised floor panel and a relatively flexible edge trim element therefor, and substantially as hereinbefore described with reference to the accompanying drawings.

9. A composite raised floor panel comprising a lower tray containing structural in-fill material and a lid therefor having downturned and inwardly inclined tray to enclose the in-fill material, the edges of said lid being fitted with an edge trim element according to any one of Claims 1-7.

PUB-NO: GB002157734A
DOCUMENT-IDENTIFIER: GB 2157734 A
TITLE: Flexible trim for lid
PUBN-DATE: October 30, 1985

INVENTOR-INFORMATION:

NAME	COUNTRY
WILCOX, ALAN KEITH	N/A
DOLLIMORE, PAUL	N/A

ASSIGNEE-INFORMATION:

NAME	COUNTRY
DONN PROD INC	N/A

APPL-NO: GB08409341

APPL-DATE: April 11, 1984

PRIORITY-DATA: GB08409341A (April 11, 1984)

INT-CL (IPC): E04F015/024

EUR-CL (EPC): E04F015/024

US-CL-CURRENT: 52/126.6

ABSTRACT:

There is provided a relatively flexible edge trim element for a lid 16 of a composite raised

floor panel, the lid having downturned and inwardly inclined sides, the trim element comprising a lower channel-shaped portion 24 for receiving the bottom edge of a side of the lid, an intermediate side portion 26 extending upwardly from the channel portion to be generally coextensive with said side 20 of the lid along the outer face thereof, and an upper portion 28 extending inwardly from the upper edge of said side portion to be above the upper surface of the lid and providing an inwardly facing abutment surface 32 to be adjacent the outer edge of said upper surface of the lid. 